



**BILLING CODE: 3510-60-P**

**DEPARTMENT OF COMMERCE**

**National Telecommunications and Information Administration**

**[Docket No. 180427421-8421-01]**

**RIN 0660-XC042**

Improving the Quality and Accuracy of Broadband Availability Data

**AGENCY:** National Telecommunications and Information Administration, U.S. Department of Commerce

**ACTION:** Notice and request for comments.

**SUMMARY:** The National Telecommunications and Information Administration (NTIA), on behalf of the Department of Commerce (Department), is requesting comment on actions that can be taken to improve the quality and accuracy of broadband availability data, particularly in rural areas, as part of the activities directed by Congress in the Consolidated Appropriations Act of 2018. Through this Request for Comments (RFC), NTIA seeks input from a broad range of interested stakeholders – including private industry; academia; federal, state, and local government; not-for-profits; and other stakeholders with an interest in broadband availability – on ways to improve the nation’s ability to analyze broadband availability, with the intention of identifying gaps in broadband availability that can be used to improve policymaking and inform public investments.

**DATES:** Comments are due on or before 5 p.m. Eastern Daylight Time on **[INSERT DATE 45 DAYS AFTER PUBLICATION IN *FEDERAL REGISTER*]**.

**ADDRESSES:** Written comments may be submitted by email to [mappingrfc@ntia.doc.gov](mailto:mappingrfc@ntia.doc.gov).

Written comments may also be submitted by mail to the National Telecommunications and Information Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW. Room 4887, Attn: Douglas Kinkoph, Associate Administrator, Washington, DC 20230. For more instructions about submitting comments, see the “Instructions for Commenters” section of [SUPPLEMENTARY INFORMATION](#).

**FOR FURTHER INFORMATION CONTACT:** Andy Spurgeon, tel.: (720) 389–4900, email: [aspurgeon@ntia.doc.gov](mailto:aspurgeon@ntia.doc.gov), or Tim Moyer, tel.: (202) 482–6423, email: [tmoyer@ntia.doc.gov](mailto:tmoyer@ntia.doc.gov), National Telecommunications and Information Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW., Room 4725, Washington, DC 20230. Please direct media inquiries to NTIA’s Office of Public Affairs, (202) 482–7002, or at [press@ntia.doc.gov](mailto:press@ntia.doc.gov).

**SUPPLEMENTARY INFORMATION:**

*Background:* Broadband connectivity is essential to the nation’s economic growth and social advancement. It is the conduit for economic and social opportunities for U.S. households and a gateway to increased productivity, growth and market access for businesses of all sizes, yet many American businesses, households and critical anchor institutions lack sufficient broadband availability. Using its current definition of broadband (25 Mbps downstream / 3 Mbps upstream), Federal Communications Commission (FCC) data show that approximately 8 percent of Americans lived in places where fixed terrestrial broadband service was unavailable by the

end of 2016. This data also demonstrates that there continued to be a significant disparity across America, with more than 30 percent of rural Americans and approximately 35 percent of those living on Tribal lands lacking broadband availability, compared to 2 percent of Americans living in urban areas<sup>1</sup>. Many businesses, schools and libraries in rural and Tribal areas are insufficiently served or cannot afford the network transmission speed required to support multiple users of bandwidth-intensive applications. Knowing where the persistent gaps in broadband exist is crucial to enabling more efficient and effective investments in broadband infrastructure from both the public and private sectors.

NTIA, in collaboration with the FCC, pioneered the collection of extensive broadband deployment data when it launched the State Broadband Initiative (SBI) in 2009. Through this program, NTIA worked with every state, territory, and the District of Columbia to collect fixed and mobile broadband availability data for over 11 million Census blocks every six months for five years. To make these data accessible to a broad audience, NTIA launched the National Broadband Map (NBM) in 2011. Although the SBI program ended in 2015, NTIA continues its extensive work to collect, analyze, and disseminate data relevant to broadband availability and adoption.

Presently, the only source of nationwide broadband availability data is that collected from broadband service provider responses to the FCC Form 477 Fixed Broadband Deployment data process. Form 477 data are submitted by voice and broadband telecommunications service providers semi-annually and include information on services each provider offers, at the Census

---

<sup>1</sup> Federal Communications Commission 2018 Broadband Progress Report. See [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-18-10A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-18-10A1.pdf).

block level.<sup>2</sup> While the Census block system provides a very high level of geographic granularity overall – the United States is divided into over 11 million blocks, 95 percent of which do not exceed 1 square mile in land area – it is possible that broadband availability may vary within a single block, particularly if it is geographically larger (which is most common in rural areas). A provider offering service to any homes or businesses in a Census block is instructed to report that block as served in its Form 477 filing, even though it may not offer broadband services in most of the block. This can lead to overstatements in the level of broadband availability, especially in rural areas where Census blocks are large.

Moreover, there is no independent validation or verification process for Form 477 data service providers to submit to the FCC. While NTIA believes that the Form 477 data program is impressively large and useful, and benefits broadband policy research and decision-making, as well as the FCC’s internal needs, NTIA also believes that the Form 477 data collection program suffers from issues with data accuracy.

Recognizing the deficiencies of the current broadband data collection process, Congress directed NTIA to update the national broadband availability map in coordination with the FCC and use partnerships previously developed with the states. Unlike the SBI program, in which NTIA worked with the states to collect and validate broadband availability data independent from the FCC’s Form 477 data collection process, this is not a new program to fund the primary collection of broadband availability or subscription data, nor to fund specific data collection activities by states or third parties. Rather, Congress directed NTIA to acquire and display available third-party data sets to the extent it is able to negotiate inclusion to augment data from the FCC, other

---

<sup>2</sup> “All facilities-based broadband providers are required to file data with the FCC twice a year (Form 477) on where they offer Internet access service at speeds exceeding 200 kbps in at least one direction.” See <https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477>.

federal government agencies, state government, and the private sector. The objective of these updates is to identify regions of the country with insufficient broadband capacity, particularly in rural areas.

NTIA is well-suited to perform this task. It has extensive experience collecting data on broadband adoption and usage in the United States, creating decades of datasets that complement the Form 477 data collections on broadband deployment and subscription. Since 1994, NTIA has partnered with the Census Bureau (Census) to survey approximately 53,000 U.S. households on their Internet and computer use. NTIA's questionnaire, administered as a supplement to Census's Current Population Survey (CPS), includes more than 50 questions to gather a wealth of information on household and individual Internet use and demographics, including the locations, technologies, and devices that people use to go online, their online activities, and the reasons why some Americans still do not utilize these technologies. Whereas Form 477 focuses on broadband availability and subscription data gathered from service providers, NTIA's CPS Supplements provide detailed information on adoption and usage of the Internet, as reported by households across the country. The NTIA surveys, together with the FCC's Form 477 and three household broadband adoption questions on the American Community Survey, comprise a valuable, holistic set of federal data sources related to broadband.

NTIA issues this RFC to solicit informed recommendations and feedback on sources of broadband availability data, mechanisms to validate broadband availability data using multiple data sources or new techniques, and approaches to leverage such data and techniques to inform broadband planning at the state and national levels by promoting the most efficient use of state or federal funding to areas that are insufficiently served by broadband.

*Request for Comments:* NTIA invites comment on the full range of issues that may be presented by this inquiry, including issues that are not specifically raised in the questions below.

Commenters are encouraged to address any or all of the questions below. Comments that contain references to studies, research, and other empirical data that are not widely published should include copies of the referenced materials with the submitted comments.

*1. Identifying additional broadband availability data:*

- a. What additional data on broadband availability are available from federal, state, not-for-profit, academic, or private-sector sources to augment the FCC Form 477 data set?
- b. What obstacles – such as concerns about the quality, scope, or format of the data, as well as contractual, confidentiality, or data privacy concerns – might prevent the collaborative use of such data?

*2. Technology type, service areas, and bandwidth:* Please consider providing a table or spreadsheet attachment when responding to question 2, if needed.

- a. For each broadband availability data source, please define the specific broadband technologies (*e.g.*, wireline, cable, fixed wireless, satellite, multiple sources, etc.) included in the data set. Please explain the service areas or geographic scope of the data set (*e.g.*, Census block, county, cable franchises, publicly funded service areas, etc.) and describe how records from the data set could be matched with records from Form 477 data.
- b. Describe how frequently the data set is updated and the methodology used for collection and what measures are employed to validate or otherwise ensure the

data is accurate. Please explain whether the data set differentiates between subscribed bandwidth and maximum available speeds.

- c. For each data set, please provide the name(s) and type(s) of entity that collects the data.
- d. Finally, please specify the format of the data (*e.g.* CSV, specific database, specific Geographic Information System (GIS) format, etc.)

3. *New approaches:* Are there new approaches, tools, technologies, or methodologies that could be used to capture broadband availability data, particularly in rural areas?

4. *Validating broadband availability data:*

- a. What methodologies, policies, standards, or technologies can be implemented to validate and compare various broadband availability data sources and identify and address conflicts between them?
- b. Do examples or studies of such validation exist?
- c. What thresholds or benchmarks should be taken into account when validating broadband availability, such as bandwidth, latency, geographic coverage, technology type, etc.? How can conformance to such standards be used to evaluate the accuracy of broadband data sets? How could those standards be used to improve policymaking, program management, or research in broadband-related fields?

5 *Identifying gaps in broadband availability:*

- a. What data improvements can the government implement to better identify areas with insufficient broadband capacity?
- b. What other inputs should NTIA seek to inform data-driven broadband policy- and decision-making?

*Instructions for Commenters:* Comments submitted by email should be machine-readable and should not be copy-protected. Comments submitted by mail may be in hard copy (paper) or electronic (on CD-ROM or disk). Responders should include the name of the person or organization filing the comment, as well as a page number on each page of their submissions. All comments received are a part of the public record and will generally be posted on the NTIA Web site, <https://www.ntia.doc.gov>, without change. All personal identifying information (for example, name, address) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information. NTIA will accept anonymous comments.

Dated: May 23, 2018.

---

David J. Redl,

Assistant Secretary for Communications and Information.